## **CLAIMS**

1. A helium 3 refrigerator-utilizing magnetic property measurement system comprising:

a helium 3 refrigerator provided with a sample rod having a sample fixed thereon and a main pipe having the sample rod inserted therein and forming in a circumference of the sample rod a space for effecting cooling with helium 3 and

a magnetic property measurement system provided with a tubular body for permitting insertion of the helium 3 refrigerator therein and a cooling means disposed on an outer periphery of the tubular body and operated with helium 4 and further provided with a superconducting magnet, a magnetic field forming means, a temperature adjusting means and a magnetic field adjusting means,

wherein the main pipe is formed, as recognized sequentially from top to bottom, of an upper supporting tube, a condensing tube, a lower inner tube and an outer tube adapted to form an insulated vacuum chamber between itself and the lower inner tube and wherein the lower inner tube is formed of titanium.

- 2. A helium 3 refrigerator-utilizing magnetic property measurement system according to claim 1, wherein the outer tube is formed of copper.
- 3. A helium 3 refrigerator-utilizing magnetic property measurement system according to claim 1 or claim 2, wherein the condensing tube is formed of copper.
- 4. A helium 3 refrigerator-utilizing magnetic property measurement system according to any one of claims 1 to 3, wherein the upper supporting tube is formed of stainless steel.